



JEPAS(PG)-2020

Subject: M. Sc. in Operation Theatre Science (M. Sc OTS)-2020

Duration: 90 minutes

Full Marks: 100

Instructions

1. All questions are of objective type having four answer options for each. Only one option is correct. Correct answer will carry full marks 1. In case of incorrect answer or any combination of more than one answer, $\frac{1}{4}$ mark will be deducted.
2. Questions must be answered on OMR sheet by darkening the appropriate bubble marked A, B, C, or D.
3. Use only **Black/Blue ball point pen** to mark the answer by complete filling up of the respective bubbles.
4. Mark the answers only in the space provided. Do not make any stray mark on the OMR.
5. Write your roll number carefully in the specified locations of the **OMR**. Also fill appropriate bubbles.
6. Write your name (in block letter), name of the examination centre and put your full signature in appropriate boxes in the OMR.
7. The OMR is liable to become invalid if there is any mistake in filling the correct bubbles for roll number or if there is any discrepancy in the name/ signature of the candidate, name of the examination centre. The OMR may also become invalid due to folding or putting stray marks on it or any damage to it. The consequence of such invalidation due to incorrect marking or careless handling by the candidate will be sole responsibility of candidate.
8. Candidates are not allowed to carry any written or printed material, calculator, docu-pen, log table, wristwatch, any communication device like mobile phones etc. inside the examination hall. Any candidate found with such items will be **reported against** & his/her candidature will be summarily cancelled.
9. Rough work must be done on the question paper itself. Additional blank pages are given in the question paper for rough work.
10. Hand over the OMR to the invigilator before leaving the Examination Hall.



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1) The normal value of ETCO₂ is

- a) 12-22mm
- b) 22-32mm
- c) 32-42mm
- d) 42-52mm

2) All of the following are problems of wound healing except

- a) Paralysis
- b) Hypertrophic scar
- c) Marjolin's ulcer
- d) Wound dehiscence

3) Which nerve is save during parotid gland surgery?

- a) phrenic
- b) vagus.
- c) facial.
- d) lingual.

4) Reasons for prolonged apnoea after Succinyl choline

- a) Phase II block
- b) Atypical pseudo cholinesterase
- c) Low pseudo cholinesterase
- d) All of the above

5) Type of bandage required for Arm is

- a) 1"
- b) 2¹/₂"
- c) 3"
- d) 4"

6) Symptom mostly relieved after C.A.B.G.

- a) Angina.
- b) Heart failure.
- c) Palpitation.
- d) Syncope.

7) Starfish device is a—

- a) Compressive type stabilizer used in Off pump CABG.
- b) Capture type stabilizer used in Offpump CABG.
- c) Vaccum assisted stabilizer used in Off pump CABG.
- d) Positioning device.

8) In a full term newborn the ductus arteriosus closes within the first _____ hours of life by physical examination.

- a) 5 hours.
- b) 10 hours.
- c) 15 hours.
- d) 24 hours.

9) Peripheral arterial catherization leads to all except?

- a) Dissection.
- b) Hematoma.
- c) Deep vein thrombosis.
- d) Vasovagal events.

10) Azygous vein normally drains into

- a) SVC
- b) IVC
- c) Right Atrium
- d) Right subcostal Vein

11) Earliest symptom of aortic stenosis?

- a) Exertional dyspnea.
- b) Angina.
- c) Palpitation.
- d) Syncope.

12) St. Jude. valve is a _____ mechanical valve.

- a) Bileaflet.
- b) Ball & cage.
- c) Tilting disc.
- d) Silastic ball.

13) Pericardium has _____ layers.

- a) 1
- b) 2
- c) 3
- d) 4

14) All of the following are Non depolarizing agents except

- a) Vecuronium
- b) Atracurium
- c) Gallamine
- d) Succinyl choline

15) Transesophageal echocardiography detects all of the structures better except—

- a) Mitral valve.
- b) Left atrial appendage.
- c) Thoracic aorta.
- d) Right atrium.

16) Syne's amputation means amputation at:

- a) At foot.
- b) at knee.
- c) at shoulder.
- d) at metacarpal.

17) True about coronary artery anatomy—

- a) Right dominance is seen in 90% of patients.
- b) Acute marginal artery arises from L.A.D.
- c) Acute marginal artery arises from L.A.D. First septal branch arises from left circumflex artery.
- d) In normal persons L.C.X. artery supplies sinus node.

18) In Tetralogy of Fallot which is not a feature—

- a) Ventricular septal defect.
- b) Infundibular pulmonary stenosis.
- c) Normal position of aorta.
- d) Rt. Ventricular hypertrophy.

19) The first human heart transplant was performed by—

- a) Hardy.
- b) Shumway.
- c) Barnard.
- d) Lower.

20) All of the following are advantages of Laparoscopic Surgery except

- a) Better visualization
- b) Shorter hospital stay
- c) Minimal bleeding
- d) Faster recovery

- 21) Murphy's sign is elicited in pathology of the
- Liver
 - Kidney
 - Lungs
 - Gall Bladder
- 22) Following are the goals of premedication except
- To relieve anxiety
 - To control infection
 - To produce hemodynamic stability
 - To increase duration of anaesthesia
- 23) Rt. lung has _____ bronchopulmonary segments.
- 10.
 - 8.
 - 9.
 - 12.
- 24) The principle muscle of inspiration is
- External intercostals
 - Internal intercostals
 - Diaphragm
 - Pectoralis
- 25) All of the following are synthetic opioide except
- Pethidine
 - Tramadal
 - Fentanyl
 - Marphine
- 26) All of the following are classes of surgical wound except
- Complicated
 - Partial thickness
 - Deep
 - Complex
- 27) The most common primary cardiac tumour—
- Rhabdomyoma.
 - Myxoma.
 - Fibroma.
 - Hemangioma.
- 28) Pectus excavation —
- Least frequent anterior chest wall deformity.
 - Majority of the affected children are within first 5 years of life.
 - More frequently in boys.
 - Prosthesis use was proposed by Judet and Judet.
- 29) The gall bladder is present in the _____ surface of the liver.
- Anterior
 - Posterior
 - Inferior.
 - Right
- 30) Critical mitral stenosis denotes Mitral valve orifice are less than—
- 2.0 sq. cm.
 - 0.5 sq. cm.
 - 1.5 sq. cm.
 - 1.0 sq. cm.

31) Recurrent laryngeal nerve is saved during which surgery?

- a) thyroidectomy.
- b) gastrectomy.
- c) cystostomy.
- d) colectomy.

32) The colour of oxygen cylinder is

- a) Blue
- b) Black
- c) White
- d) Grey

33) Base of the heart is formed by mainly

- a) Left atrium
- b) Right atrium
- c) Left ventricle
- d) Right ventricle

34) Which tumour commonly arise in posterior mediastinum?

- a) Thymoma.
- b) Lymphoma.
- c) Germ cell tumour.
- d) Schwannomas.

35) All of the following are opioid receptors except

- a) κ
- b) δ
- c) α
- d) μ

36) All of the following are true for bipolar diathermy except

- a) Conducting plate not required
- b) Can be used in patients with artificial valves
- c) Adjacent tissue never damaged
- d) Used for cutting and coagulation

37) All of the following are names of retractors except

- a) Mayo
- b) Deavor
- c) Lanjenbeck
- d) Morris

38) Lumber sympathectomy is done for:

- a) Burger's disease.
- b) cervical spondylosis.
- c) Horner syndrome.
- d) appendicitis.

39) Intramuscular Injection is given in the following quadrant of gluteal region

- a) Upper medial
- b) Upper lateral
- c) Lower medial
- d) Lower lateral

40) Semi closed circuits are all except

- a) Magill Circuit
- b) Water's circuit
- c) Mapleson circuit
- d) Schimmelbusch circuit

41) Proctoscope is used to see:

- a) esophagus.
- b) bloodvessel.
- c) small intestine.
- d) rectum.

42) Dissection of Calot triangle done in:

- a) Thyroidectomy.
- b) Cholecystectomy.
- c) Hemorrhoidectomy.
- d) colostomy.

43) The basic components of general anesthesia are

- a) Narcosis
- b) Analgesia
- c) Muscle Relaxation
- d) Amnesia

44) Green field filter is placed in:

- a) Aorta.
- b) esophagus.
- c) inferior vena cavae.
- d) ureter.

45) Common sclerosant agent used in malignant pleural effusion:

- a) Bleomycin.
- b) Cetrimide.
- c) Tetracycline.
- d) Talc.

46) Appendicular artery arises from:

- a) Middle colic.
- b) gastric.
- c) ileocolic.
- d) inferior mesentric.

47) The duration of ventricular systole is

- a) 0.1s
- b) 0.3s
- c) 0.5s
- d) 0.7s

48) The definitive diagnostic study of choice in tracheobronchial stenosis—

- a) Virtual bronchoscopy.
- b) CT scan thorax.
- c) Chest X-ray.
- d) Bronchography.

49) The normal pulmonary vascular resistance is—

- a) 1200 dynes sec/ sq. cm.
- b) 200 dynes sec/ sq. cm.
- c) 70 to 80 dynes sec/ sq. cm.
- d) 2 to 8 dynes sec/ sq. cm.

50) All are lobes of the left lung except

- a) Upper
- b) Middle
- c) Lower
- d) Lingular

51) Core temperature can be monitored at following sites except

- a) Esophagus
- b) Pulmonary artery
- c) Tympanic membrane
- d) Rectum

52) Cardiac orifice is part of

- a) Heart
- b) Lungs
- c) Stomach
- d) Kidneys

53) Most commonly used vein for blood sampling and IV infection is

- a) Basilic
- b) Cephalic
- c) Axillary
- d) Median cubital

54) Who performed the first mitral valve commissurotomy?

- a) Souttar.
- b) Levine.
- c) Bailey.
- d) Danila.

55) The first oxygenator was invented—

- a) Favalo.
- b) Lillehei.
- c) J. H. Gibbon.
- d) M. Yacoub.

56) Not a treatment in hypertrophic cardiomyopathy—

- a) Surgical septectomy.
- b) Implantable defibrillators.
- c) Alcohol septal ablation.
- d) Dobutamine.

57) Serratus anterior muscle is supplied—

- a) Medial pectoral nerve.
- b) Long thoracic nerve.
- c) Thoracodorsal nerve.
- d) Suprascapular nerve.

58) Following are branches of abdominal aorta except

- a) Renal artery
- b) Phrenic artery
- c) Inferior mesenteric artery
- d) Femoral artery

59) Right subcostal incision is called:

- a) Kocher.
- b) Mc Boney.
- c) Mayo.
- d) Paramedian.

60) In achalasia cardia of oesophagus false statement is—

- a) Malignant oesophageal disease.
- b) Progressive dysphagia, regurgitation and weight loss are present.
- c) Manometry is a key diagnostic test.
- d) Heller myotomy gives better result over pneumatic dilatation.

61) Following are etiologies of excessive bleeding after cardiopulmonary bypass except—

- a) Acquired platelet dysfunction.
- b) Haemoconcentration.
- c) Primary fibrinolysis.
- d) Heparin rebound.

62) Solution used for TUR of prostate:

- a) Normal saline.
- b) distilled water.
- c) glycine.
- d) Ringer's Lactate.

63) Gerota's fascia covers which organ?

- a) heart.
- b) intestine.
- c) brain.
- d) kidney.

64) Following instrument is used in Lung Surgery

- a) Crossclamp
- b) Bronchial clamp
- c) Moynihan's occlusion clamp
- d) Payr clamp

65) Following sutures are used for abdominal closure in gynaecological surgery except

- a) Catgut
- b) Vicryl
- c) Prolene
- d) POS

66) Which structure do not pass through the aortic opening of the diaphragm?

- a) Azygos vein.
- b) Thoracic duct.
- c) Descending aorta.
- d) Vagus nerve.

67) All of the following are phases of wound healing except

- a) Exudative phase
- b) Proliferative phase
- c) Supportive phase
- d) Remodelling phase

68) Lister dilators used to dilate stricture of :

- a) esophagus.
- b) urethra.
- c) bile duct.
- d) trachea.

69) Massive transfusion occurs when patient receives blood transfusion more than

- a) 4litres
- b) 5litres
- c) 6litres
- d) 10litres

70) Causes of difficult intubation are all except

- a) Neck circumference <43cm
- b) Macroglossia
- c) Laryngeal oedema
- d) Micrognathia

71) Indications of emergency room thoracotomy:

- a) Air leak.
- b) >500 ml chest tube drainage.
- c) Flail chest.
- d) Hourly drainage more than 150 ml for two hours.

72) In aspergilloma of lung false is—

- a) Aspergillus form fungal ball in a cavity due to malignancy.
- b) It is not invasive aspergillus infection.
- c) Dissemination is not very common.
- d) Treatment of choice is surgery.

73) All of the following are colloid except

- a) Dextran
- b) Hypertonic saline
- c) Albumin
- d) Blood

74) Male reproductive organs include all except

- a) Seminal vesicle
- b) Urethra
- c) Epididymis
- d) Ureter

75) Following anesthetic is the agent of choice for induction in children

- a) Enflurane
- b) Sevoflurane
- c) Halothane
- d) Nitrous oxide

76) Best conduit available for CABG is—

- a) Internal thoracic artery.
- b) Gastro-epiploic artery.
- c) Radial artery.
- d) Saphenous vein.

77) In Cardio-Pulmonary Bypass activated clotting time is elevated by giving—

- a) Heparin.
- b) Warfarin.
- c) Tirofiban.
- d) Streptokinase.

78) Scalp suture is sutured for:

- a) Galea aponeurotica.
- b) areolar tissue.
- c) Artery.
- d) anastomosis.

79) Technique of bandaging is called

- a) Dysmergia
- b) Dyssynergia
- c) Dyslexia
- d) Dystrophy

80) The heart lies in the

- a) Superior mediastinum
- b) Anterior mediastinum
- c) Posterior mediastinum
- d) Middle mediastinum

- 81) Which technique is employed for autologous blood transfusion?
- Hyper-volemic Hemodilution.
 - Normo-volemic Hemodilution.
 - Post donation.
 - Predonation.
- 82) The following muscle is known as Peripheral Heart
- Soleus
 - Gastrocnemius
 - Adductor Longus
 - Tibialis anterior
- 83) Lithotripsy is used for:
- bile duct stone.
 - renal stone.
 - gastric stone.
 - gall bladder stone.
- 84) Complications of thoracic trauma are all except—
- Atelectasis.
 - Haemothorax.
 - Heart failure.
 - Air embolism.
- 85) Types of Endotracheal tubes are all except
- North facing tube
 - South facing tube
 - East facing tube
 - Oxford tubes
- 86) Bassini's method of repair is used for:
- Umbilical hernia.
 - inguinal hernia.
 - lumbar hernia.
 - diaphragmatic hernia.
- 87) Day care surgery can be done in
- Surgery requiring >1hr
 - Infants less than 3months
 - Pregnancy
 - None of the above
- 88) Best method to measure per operative blood loss
- Gravimetric method
 - Volumetric method
 - Calorimetric method
 - Anemometric method
- 89) The first anesthetic used was
- Ether
 - Nitrous oxide
 - Chloroform
 - None of the above
- 90) Rectus sheath is formed by – i) External oblique ii) Internal oblique iii) Rectus abdominis iv) Pyramidalis
- i,ii,iii
 - i,ii,iv
 - ii,iii,iv
 - iii,iv,i

91) Following muscle relaxants cannot be given in hyper kalemia

- a) Succinyl choline
- b) Pancuromium
- c) Gallamine
- d) Atracuranium

92) Humidifiers can be all except

- a) Passive humidifiers
- b) Non heated humidifiers
- c) Heated humidifiers
- d) Invasive humidifiers

93) All the following are absorbable except

- a) Polyglactic Acid
- b) Polydioxanene
- c) Polyethylene
- d) Polyglecaprane

94) Humby's knife is used for:

- a) Thyroid surgery.
- b) gastric surgery.
- c) skin grafting.
- d) amputation.

95) Pulsus paradoxus is seen in—

- a) Pulmonary embolism.
- b) Cardiac tamponade.
- c) V.S.D.
- d) Severe aortic stenosis.

96) The most common location of abdominal aortic aneurysm—

- a) Infrarenal.
- b) Suprarenal.
- c) Coeliac.
- d) Subdiaphragmatic.

97) Hudson brace is used during which operation?

- a) Lobectomy.
- b) burrhole.
- c) cystectomy.
- d) amputation.

98) Late (10 year) long term patency of LITA to LAD grafts is—

- a) 100%.
- b) 50%.
- c) 91%.
- d) 80%.

99) All of the following are advantages of piezoelectric crystal in ultrasonography except:

- a) Accessible
- b) High frequency response
- c) Fixed shape
- d) Self generating

100) Portal vein is formed by the following:

- a) Superior mesenteric and splenic veins
- b) Inferior mesenteric and splenic veins
- c) Superior and inferior mesenteric vein
- d) Splenic vein and renal vein